APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/501,493	02/09/2000	John Marland Garth	ST9-99-130	3937

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EXAMINER
NEWGEN, LILIAN

ART UNIT	PAPER NUMBER
2127	

DATE MAILED: 11/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

-- *The MAILING DATE of this communication appears on the cover sheet with the corresp ndence address* --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>03</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>09 February 2000</u> .

2a)☐ This action is **FINAL.** 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-57</u> is/are pending in the application.

4a) Of the above claim(s) <u>21-38 and 40-57</u> is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☐ Claim(s) <u>1-11,20 and 39</u> is/are rejected.

7)☐ Claim(s) <u>12-19</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>09 February 2000</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) <u>7</u> .

4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: .

DETAILED ACTION

1.   This office acknowledges receipt of the following items from the applicant:

Information disclosure statements (IDS) were considered.

2.   This office action in response to application filed on February 9, 2000. Claims 1-57 are

presented for examination.

Claim Objections

3.   **Claims 21-38 and 40-57** are withdrawn from consideration because they are depending

on improper claim numbers, which are 22 and 43 respectively.

4.   **Claims 42-59** have been renumbered as **40-57** because there were no claims 41 and 41.

Claim Rejections - 35 USC § 102

5.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6.   Claims 1, 20, and 39 are rejected under 35 U.S.C. 102(b) as being unpatentable over

Bhattacharya et al. (US Pat 5,797,000).

As per **claims 1, 20, and 39**, Bhattachary et al. disclose a method of loading data into a

data store connected to a computer, the method comprising the steps of:

identifying memory constraints (memory capacity, col. 9, lines 6 – 17);

identifying processing capabilities (fig. 1, number of processors p, col. 4, lines 41 – 63);

and

determining a number of load (col. 2, lines 57-65, col. 11, lines 44 – 53), and sort

processes (col. 2, line 66 – col. 3, line 6) to be started in parallel based on the identified memory

constraints and processing capabilities (col. 1, lines 24 – 28, parallel tasks based on processing

capabilities: col. 4, line 64 – col. 5, line 8, parallel sort processing: col. 2, lines 66 – col. 3, line

6).

Although Bhattacharya et al. did not specifically indicate that the number of load and sort

processes to be started in parallel be determined on the constraints of memory and processing

capability limitations, nevertheless, the fact that loading and sorting processes that Bhattacharya

et al. show to be started in parallel, with the description of the memory constraints and the

number of processors (as indicated above), inherently meant the limitation (number of load and

sort tasks that can be processed) is based on the memory and processing capabilities/constraints.

Claim Rejections - 35 USC § 103

7.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

8.   Claims 2 – 3 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bhattacharya et al. (US Pat 5,797,000) as applied to claims 1, 20, and 39 above and in view of

Hintz et al. (US Pat 5,222,235).

Regarding **claim 2**, although Bhattacharya et al. did not clearly teach the method of claim

1 further comprising determining a number of build processes based on the number of sort

processes, nevertheless, this teaching is considered common knowledge in the art per Hintz's

invention (col. 5, lines 50 – 51). Therefore, it would have been obvious to one of ordinary skill

in the art, at the time the invention was made, to realize this common feature shown by Hintz et

al., to the invention of Bhattacharya et al., as one in the pertained art would know that build

process is a consequential step directly dependent on sort process.

Regarding **claim 3**, though Bhattacharya et al. taught the method of claim 1, except

wherein the number of sort processes does not exceed a number of indexes to be built,

nevertheless, according to the disclosure of Hintz et al. (as cited in grounds for rejection of

claims 2, 21 and 42), "one index at a time" clearly indicates the claimed invention, in which the

number of indexes excessive to the number of sort processes would not be possible. Therefore, it

would have been obvious to one of ordinary skill in the art, at the time the invention was made,

to integrate this feature disclosed by Hintz et al., to the invention of Bhattacharya et al. so that

the number of build indexes can not exceed the number of sort processes.

9.   Claims 4 – 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over

Bhattacharya et al. (US Pat 5,797,000) as applied to claims 1, 20, and 39 above and in view of

Bordonaro et al. (US Pat 5,307,485).

Regarding **claim 4,** though Bhattacharya et al. taught the method of claim 1, except

wherein the number of load processes does not exceed a number of partitions to be loaded,

nevertheless, this feature has been illustrated by Bordonaro et al. (fig. 3, 310 shows N partitioned

tasks and 312 distributes over the N processors). In fig. 2, 202 shows that as the records from

storage device are loaded, col. 4, line 62 – col. 6, line 27 describes the fact that N partitioned

tasks corresponds to N processors, which implies the limitation, in which the number of load

processes does not exceed a number of partitions to be loaded. Note that fig. 2 corresponds to

fig. 3 in that records loaded into memory are to be part of the portion from which tasks are

created (col. 5, lines 58 – 60) and subsequently, divided in to partitions for load processes, as

shown in fig. 3. Therefore, it would have been obvious to one of ordinary skill in the art, at the

time the invention was made, to integrate the feature disclosed by Bordonaro et al. to the

invention by Bhattacharya et al. so that various memory constraints would still be suitable to

apply the desired processes (col. 1, lines 33 – 56).

Claim 5 is rejected based on the indicated rational above since Bordonaro et al.

comprehensively taught both load (described above) and sort processes (col. 1, lines 57 – 68),

which are then processed by the N processors. Therefore, it would have been obvious to one of

ordinary skill in the art, at the time the invention was made, to realize the advantage of

combining the features disclosed by Bordonaro et al. to the invention of Bhattacharya et al. for

overall efficiency purposes.

Regarding **claim 6,** although Bhattacharya et al. taught the method of claim 1, except

wherein the memory utilized by the load and sort processes does not exceed memory constraints,

nevertheless, Bordonaro et al. shows the load and sort processes directly dependent on memory

constraints (col. 5, lines 54 – 62). Therefore, this is considered obvious to one pertaining an ordinary skill in the art, to recognize that, in designing computer system to load data, in which balancing the loads become an issue, to take into account the memory constraints.

10.   Regarding **claims 7 – 11**, the examiner takes an Official Notice that the limitations narrowed by these claims are considered obvious and furthermore a matter of design choice, since applicants have not disclosed that the claimed limitations solve any stated problem or are for any particular purpose and it appears that the invention would perform equally well without the claimed features. Therefore, it would have been obvious to one of ordinary skill in the art, at the time the invention was made, to efficiently utilize all the processing capabilities required for the desired task.

Allowable Subject Matter

11.   **Claims 12 – 19** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

12.   The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

13.   Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lilian Newgen whose telephone number is (703) 305-7864.

Any inquiry of a general nature or relating to the status of this application or proceeding

should be directed to the receptionist whose telephone number is 703-305-3900.

Lilian Newgen
Examiner
Art Unit 2127

ln
November 1, 2002

JOHN A. FOLLANSBEE
PRIMARY EXAMINER